Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-28 (Cancelled)

29. (New) A network structure controlling device comprising:

a memory; and

a processor in communication with the memory, the memory comprising computer executable instructions, the computer executable instructions executable with the processor and comprising:

a function relocation unit configured to analyze, in response to an instruction of relocation, a current available node resource based on statuses of node resources in a network, to determine new node locations of node functions, and to relocate the node functions to the new node locations through an addition of executable code at the new node locations, the node functions relocated in accordance with a relocation plan;

a path restructure unit configured to restructure a structure of paths in the network into an optimum condition in accordance with statuses of link resources in the network and in response to an instruction of restructuring, wherein the path restructure unit is configured to determine a restructuring plan for the structure of the paths based on an exchange of data on a draft relocation plan of the node functions and data on a draft restructuring plan of the structure of the paths, the exchange of data being between the function relocation unit and the path restructure unit; and

a control unit configured to determine whether transmission of the instruction of relocation to the function relocation unit is necessary and whether transmission of the instruction of restructuring to the path restructure unit is

necessary based on the statuses of node resources and the statuses of link resources, wherein the control unit is further configured to selectively transmit the instruction of relocation and the instruction of restructuring.

30. (New) The network structure controlling device of claim 29, wherein the node functions include a node function, the node resources include node resources at a first device and a second device in the network, relocation of the node functions to the new node locations includes a relocation of the node function from the first device to the second device, and the function relocation unit is configured to determine the first device and the second device.

31. (New) The network structure controlling device of claim 30, wherein the control unit is configured to:

transmit the instruction of relocation in response to a determination that a relocation of the node function from first device to the second device is necessary; and

transmit the instruction of restructuring in response to a determination that a reconfiguration of a communication path formed in the network is necessary.

32. (New) The network structure controlling device of claim 30, wherein

the function relocation unit is configured to generate a provisional determination of the first device and the second device, the draft relocation plan of the node functions comprising the provisional determination of the first device and the second device; and

the path restructure unit is configured to generate a final determination of the new communication path based on the provisional determination of the first device and the second device, the restructuring plan of the structure of the paths comprising the final determination of the new communication path.

33. (New) The network structure controlling device of claim 30 further comprising an exclusive control unit configured to prevent a node resource and a link resource of the first device and the second device from being controlled by another network structure controlling device in the network in response to a determination by the control unit that relocation of the node function of the first device in the network is necessary.

34. (New) The network structure controlling device of claim 30, wherein the node function comprises at least one of a firewall function, a mobility control function, a call control function, a data copy function, a multicast function, a mobile anchor function, or a mobile buffering function.